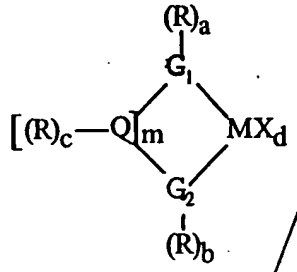
Please amend the following claims.

1. (amended twice) A polymerization catalyst component {for polymerization of alpha-olefins, the catalyst} comprising a {cocatalyst and a catalyst component} metallocene complex and a support, wherein the {catalyst component} metallocene complex is supported on {a} the {porous inorganic solid} support, wherein the {catalyst component} metallocene complex is defined by formula I or II

$$(G(R)_a)_xMX_y \qquad \text{I}$$



II

wherein:

R groups are equal to or different from each other; R is hydrogen or a radical containing from 1 to 20 carbon atoms; R optionally contains a heteroatom selected from the group consisting of elements from groups 14 through 16 of the periodic table of the elements and boron; at least one R group contains an $OSiR''_3$ group, wherein R'' is selected from the group consisting of: linear {or branched} C_1-C_{20} alkyl, branched C_1-C_{20} alkyl, linear C_3-C_{20} cycloalkyl, branched C_3-C_{20} cycloalkyl, linear C_6-C_{20} aryl,

branched C_6-C_{20} aryl, linear C_7-C_{20} alkenyl, branched C_7-C_{20} alkenyl, linear C_7-C_{20} arylalkyl, branched C_7-C_{20} arylalkyl, linear C_7-C_{20} arylalkenyl, branched C_7-C_{20} arylalkenyl, {and} linear C_7-C_{20} alkylaryl, and branched C_7-C_{20} alkylaryl;

Q is selected from the group consisting of: boron and elements from groups 14 and 16 of the periodic table; when **m** > 1, Q groups are equal to or different from each other; free valences of every Q are filled with the R group or groups according to a value of **c**; two R groups optionally are {united} bonded to form a ring having from 5 to 8 atoms; **m** ranges from 1 to 4;

{L} G groups are equal to or different from each other; {L} G is a cyclic organic group {united} bonded to M through a π bond, {L} G contains a cyclopentadienyl ring that optionally is fused with one or more other rings, or {L} G is an atom selected from the group consisting of elements from groups 15 and 16 of the periodic table;

{L_1 and L_2} G_1 and G_2 are equal to or different from each other; {L_1 and L_2} G_1 and G_2 have the same meaning as {L} G;

M is a metal selected from the group consisting of: elements from groups 3, 4, and 10 of the periodic table, lanthanides, and actinides;

X groups are equal to or different from each other; X is selected from the group consisting of: halogen, hydrogen, OR"', $N(R"')_2$, C_1-C_{20} alkyl, and C_6-C_{20} aryl; wherein R"' is selected from the group consisting of: linear {or branched} C_1-C_{20} alkyl, branched C_1-C_{20} alkyl, linear C_3-C_{20} cycloalkyl, branched C_3-C_{20} cycloalkyl, linear C_6-C_{20} aryl, branched C_6-C_{20} aryl, linear C_7-C_{20} alkenyl, branched C_7-C_{20} alkenyl, linear C_7-C_{20} arylalkyl, branched C_7-C_{20} arylalkyl, linear C_7-C_{20} arylalkenyl, branched C_7-C_{20} arylalkenyl, {and} linear C_7-C_{20} alkylaryl, and branched C_7-C_{20} alkylaryl;

x is 1 or 2, **y** is 2 or 3 in such a way that **x** + **y** = 4; **d** is an integer ranging from 0 to 2; and **a**, **b** and **c** are integers from 0 to 10 in such a way that **a** + **b** + **c** ≥ 1;
wherein the metallocene complex is supported on the support by means of a bond resulting from a reaction of the $OSiR"_3$ group of the metallocene complex with a reactive group on a surface of the support; and
wherein the $OSiR"_3$ group is not directly bonded to Q when Q is Si.

C10

2. (amended twice) A catalyst component according to claim 1 wherein in formula I or II R is selected from the group consisting of: hydrogen, SiR'_3, linear {or branched} C_1-C_{20} alkyl, branched C_1-C_{20} alkyl, linear C_3-C_{20} cycloalkyl, branched C_3-C_{20} cycloalkyl, linear C_6-C_{20} aryl, branched C_6-C_{20} aryl, linear C_7-C_{20} alkenyl, branched C_7-C_{20} alkenyl, linear C_7-C_{20} arylalkyl, branched C_7-C_{20} arylalkyl, linear C_7-C_{20} arylalkenyl, branched C_7-C_{20} arylalkenyl, {and} linear C_7-C_{20} alkylaryl, and branched C_7-C_{20} alkylaryl; {at least one R group contains an $OSiR"_3$ group, wherein R" is selected from the group consisting of: linear or branched C_1-C_{20} alkyl, C_3-C_{20} cycloalkyl, C_6-C_{20} aryl, C_7-C_{20} alkenyl, C_7-C_{20} arylalkyl, C_7-C_{20} arylalkenyl, and C_7-C_{20} alkylaryl;} and optionally {all} each {the} R {groups} group {contain} contains a {heteroatoms} heteroatom selected from the group consisting of: elements of groups 14 through 16 of the periodic table of the elements and boron.

3. (amended three times) A catalyst component according to claim 1 wherein in formula I or II M is selected from the group consisting of: Ti, Zr, and Hf.

4. (amended three times) A catalyst component according to

claim 1 wherein in formula I or II the R group containing the group OSiR″ is selected from the group consisting of: $-CH_2-CH_2-OSiMe_3$, $-CH_2-CH_2-CH_2-OSiMe_3$, $-CH_2-O-CH_2-OSiMe_3$, $-O-CH_2-CH_2-OSiMe_3$, and $-SiMe_2-CH_2-CH_2-OSiMe_3$.

5. (amended three times) A catalyst component according to claim 1 wherein in formula I {L} G is cyclopentadienyl or indenyl; M is zirconium; **x** is 2; **y** is 2; R is C_1-C_4 alkyl, wherein at least one hydrogen of one R is substituted with $OSiR''_3$ wherein R″ is selected from the group consisting of: Me, Et, and Pr.

C 10

6. (amended three times) A catalyst component according to claim {1} 2 wherein in formula II, M is zirconium; {L_1 and L_2} G_1 and G_2 are cyclopentadienyl or indenyl; R is hydrogen, a C_1-C_4 alkyl wherein at least one hydrogen of one R is substituted with $OSiR''_3$ or a $SiR'_2-OSiR''_3$ group, wherein R″ is selected from the group consisting of: methyl, ethyl, propyl; $[(R)_cQ]_m$ is H_2C-CH_2, $CRH-CH_2$, $RHC-SiR'_2$, $R_2C-SiR'_2$, and SiRR′.

7. (amended three times) A catalyst component according to claim {1} 2 wherein in formula II, M is titanium; {L_2} G_2 is an oxygen or a nitrogen atom; {L_1} G_1 is a cyclopentadienyl, indenyl or fluorenyl ring; $[(R)_cQ]_m$ is H_2C-CH_2, $CRH-CH_2$, $RHC-SiR'_2$, $R_2C-SiR'_2$, or SiRR′.

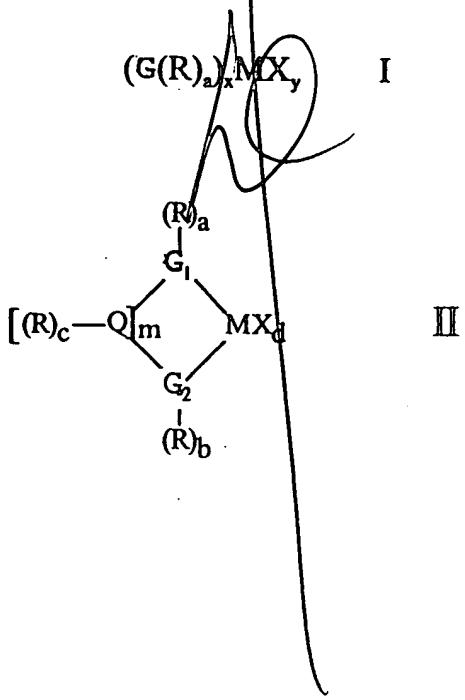
8. (amended three times) A {Solid} polymerization catalyst comprising a cocatalyst and a catalyst component {according to} as claimed in claim 1{, characterized in that catalyst component of formula I or II is supported on a porous inorganic solid}.

9. (amended twice) A catalyst component according to claim 1 wherein the {porous} support comprises an inorganic solid {is} selected from the group consisting of: silica, alumina, silica-alumina, aluminum phosphates, and mixtures thereof.

C10 Cont

10. (amended three times) A process for preparing a polymerization catalyst component, the catalyst component comprising a metallocene complex and a support, wherein the metallocene complex is supported on the support, wherein the {according to claim 1 comprising} process comprises the following steps:

(a) impregnation, under anhydrous conditions and an inert atmosphere at a temperature between -20°C and 90°C, of a solution {of} comprising at least one {catalyst component} metallocene complex on the support, wherein the metallocene complex is defined by formula I or II



wherein:

R groups are equal to or different from each other; R is hydrogen or a radical containing from 1 to 20 carbon atoms; R optionally contains a heteroatom selected from the group consisting of elements from groups 14 through 16 of the periodic table of the elements and boron; at least one R group contains an $OSiR''_3$ group, wherein R" is selected from the group consisting of: linear C_1-C_{20} alkyl, branched C_1-C_{20} alkyl, linear C_3-C_{20} cycloalkyl, branched C_3-C_{20} cycloalkyl, linear C_6-C_{20} aryl, branched C_6-C_{20} aryl, linear C_7-C_{20} alkenyl, branched C_7-C_{20} alkenyl, linear C_7-C_{20} arylalkyl, branched C_7-C_{20} arylalkyl, linear C_7-C_{20} arylalkenyl, branched C_7-C_{20} arylalkenyl, linear C_7-C_{20} alkylaryl, and branched C_7-C_{20} alkylaryl;

Q is selected from the group consisting of: boron and elements from groups 14 and 16 of the periodic table; when **m** > 1, Q groups are equal to or different from each other; free valences of every Q are filled with the R group or groups according to a value of **c**; two R groups optionally are bonded to form a ring having from 5 to 8 atoms; **m** ranges from 1 to 4;

G groups are equal to or different from each other; G is a cyclic organic group bonded to M through a π bond, G contains a cyclopentadienyl ring that optionally is fused with one or more other rings, or G is an atom selected from the group consisting of elements from groups 15 and 16 of the periodic table;

G_1 and G_2 are equal to or different from each other; G_1 and G_2 have the same meaning as G;

M is a metal selected from the group consisting of: elements from groups 3, 4, and 10 of the periodic table, lanthanides, and actinides;

X groups are equal to or different from each other; X is selected from the group consisting of: halogen, hydrogen, OR"',

$N(R"')_2$, C_1-C_{20} alkyl, and C_6-C_{20} aryl; wherein R"' is selected from the group consisting of: linear C_1-C_{20} alkyl, branched C_1-C_{20} alkyl, linear C_3-C_{20} cycloalkyl, branched C_3-C_{20} cycloalkyl, linear C_6-C_{20} aryl, branched C_6-C_{20} aryl, linear C_7-C_{20} alkenyl, branched C_7-C_{20} alkenyl, linear C_7-C_{20} arylalkyl, branched C_7-C_{20} arylalkyl, linear C_7-C_{20} arylalkenyl, branched C_7-C_{20} arylalkenyl, linear C_7-C_{20} alkylaryl, and branched C_7-C_{20} alkylaryl;

x is 1 or 2, **y** is 2 or 3 in such a way that **x** + **y** = 4;
d is an integer ranging from 0 to 2; and **a**, **b** and **c** are integers from 0 to 10 in such a way that **a** + **b** + **c** ≥ 1;

{on on a support at a temperature between -20°C and 90°C;}

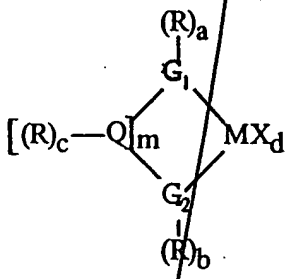
wherein the $OSiR"_3$ group of the metallocene complex reacts with a reactive group of the support to bond the metallocene complex to the support, thereby forming a resulting solid comprising the metallocene complex supported on the support; and

(b) filtration and washing the resulting solid from step (a) with a solvent selected from the group consisting of aliphatic hydrocarbons and aromatic hydrocarbons.

11. (amended three times) A process for preparing a polymerization catalyst component, the catalyst component comprising a metallocene complex and a support, wherein the metallocene complex is supported on the support, wherein the {according to claim 1 comprising} process comprises the following steps:

(a) depositing at least one {catalyst component defined by formula I or II} metallocene complex on {a} the support by using a solution {of} comprising a solvent and the {catalyst component} metallocene complex to heterogenize, wherein the metallocene complex is defined by formula I or II

$$(G(R)_a)_xMX_y \qquad I$$



II

C11 cont

wherein:

R groups are equal to or different from each other; R is hydrogen or a radical containing from 1 to 20 carbon atoms; R optionally contains a heteroatom selected from the group consisting of elements from groups 14 through 16 of the periodic table of the elements and boron; at least one R group contains an $OSiR''_3$ group, wherein R'' is selected from the group consisting of: linear C_1-C_{20} alkyl, branched C_1-C_{20} alkyl, linear C_3-C_{20} cycloalkyl, branched C_3-C_{20} cycloalkyl, linear C_6-C_{20} aryl, branched C_6-C_{20} aryl, linear C_7-C_{20} alkenyl, branched C_7-C_{20} alkenyl, linear C_7-C_{20} arylalkyl, branched C_7-C_{20} arylalkyl, linear C_7-C_{20} arylalkenyl, branched C_7-C_{20} arylalkenyl, linear C_7-C_{20} alkylaryl, and branched

C_7-C_{20} alkylaryl;

Q is selected from the group consisting of: boron and elements from groups 14 and 16 of the periodic table; when **m** > 1, Q groups are equal to or different from each other; free valences of every Q are filled with the R group or groups according to a value of **c**; two R groups optionally are bonded to form a ring having from 5 to 8 atoms; **m** ranges from 1 to 4;

G groups are equal to or different from each other; G is a cyclic organic group bonded to M through a π bond, G contains a cyclopentadienyl ring that optionally is fused with one or more other rings, or G is an atom selected from the group consisting of elements from groups 15 and 16 of the periodic table;

G_1 and G_2 are equal to or different from each other; G_1 and G_2 have the same meaning as G;

M is a metal selected from the group consisting of: elements from groups 3, 4, and 10 of the periodic table, lanthanides, and actinides;

X groups are equal to or different from each other; X is selected from the group consisting of: halogen, hydrogen, OR"', $N(R"')_2$, C_1-C_{20} alkyl, and C_6-C_{20} aryl; wherein R"' is selected from the group consisting of: linear C_1-C_{20} alkyl, branched C_1-C_{20} alkyl, linear C_3-C_{20} cycloalkyl, branched C_3-C_{20} cycloalkyl, linear C_6-C_{20} aryl, branched C_6-C_{20} aryl, linear C_7-C_{20} alkenyl, branched C_7-C_{20} alkenyl, linear C_7-C_{20} arylalkyl, branched C_7-C_{20} arylalkyl, linear C_7-C_{20} arylalkenyl, branched C_7-C_{20} arylalkenyl, linear C_7-C_{20} alkylaryl, and branched C_7-C_{20} alkylaryl;

x is 1 or 2, **y** is 2 or 3 in such a way that **x** + **y** = 4;

d is an integer ranging from 0 to 2; and **a**, **b** and **c** are integers from 0 to 10 in such a way that **a** + **b** + **c** ≥ 1;

wherein the $OSiR"_3$ group of the metallocene complex reacts with a reactive group of the support to bond the metallocene complex to the support, thereby forming a resulting solid comprising the

metallocene complex supported on the support;

(b) eliminating the solvent {through evaporation to yield a solid residue}; and

(c) {warming} bringing the resulting solid {residue up} to a temperature between 25 and 150°C.

C10

12. (amended three times) A process as claimed in Claim 10, wherein before step (a) the {catalyst component} metallocene complex is mixed with a cocatalyst.

C11

14. (amended three times) A catalyst according to claim {1} 8 wherein the cocatalyst is selected from the group consisting of: an alkylaluminoxane, boron compounds, and mixtures thereof.

C12

19. (amended once) A process as claimed in Claim 11, wherein before step (a) the {catalyst component} metallocene complex is mixed with a cocatalyst.

20. (amended once) A process for preparing a polymer, the process comprising contacting the catalyst component {as} claimed in Claim 1 with a monomer to polymerize the monomer and to produce the polymer{, wherein the catalyst is for the polymerization of alpha-olefins in solution, in suspension, in gas phase at low and high pressure and temperature or in mass at high pressures and high or low temperatures; and wherein the catalyst component is a metallocene complex}.

C13

23. (amended once) A catalyst according to claim 2, wherein the support comprises an inorganic solid selected from the group

consisting of: silica, alumina, silica-alumina, aluminum phosphates, and mixtures thereof.

24. (amended once) A catalyst according to claim 4, wherein the support comprises an inorganic solid selected from the group consisting of: silica, alumina, silica-alumina, aluminum phosphates, and mixtures thereof.

25. (amended once) A catalyst according to claim 5, wherein the support comprises an inorganic solid selected from the group consisting of: silica, alumina, silica-alumina, aluminum phosphates, and mixtures thereof.

26. (amended once) A catalyst according to claim 6, wherein the support comprises an inorganic solid selected from the group consisting of: silica, alumina, silica-alumina, aluminum phosphates, and mixtures thereof.

Please add the following new claims.

--27. A process as claimed in claim 10 wherein in formula I or II R is selected from the group consisting of: hydrogen, SiR'_3, linear C_1-C_{20} alkyl, branched C_1-C_{20} alkyl, linear C_3-C_{20} cycloalkyl, branched C_3-C_{20} cycloalkyl, linear C_6-C_{20} aryl, branched C_6-C_{20} aryl, linear C_7-C_{20} alkenyl, branched C_7-C_{20} alkenyl, linear C_7-C_{20} arylalkyl, branched C_7-C_{20} arylalkyl, linear C_7-C_{20} arylalkenyl, branched C_7-C_{20} arylalkenyl, linear C_7-C_{20} alkylaryl, and branched C_7-C_{20} alkylaryl; and optionally each R group contains a heteroatom selected from the group consisting of: elements of groups 14 through 16 of the periodic table of the elements and boron.

28. A process according to claim 10 wherein in formula I or II M is selected from the group consisting of: Ti, Zr, and Hf.

29. A process according to claim 10 wherein in formula I or II the R group containing the group OSiR″ is selected from the group consisting of: $-CH_2-CH_2-OSiMe_3$, $-CH_2-CH_2-CH_2-OSiMe_3$, $-CH_2-O-CH_2-OSiMe_3$, $-O-CH_2-CH_2-OSiMe_3$, and $-SiMe_2-CH_2-CH_2-OSiMe_3$.

30. A process according to claim 10 wherein in formula I L is cyclopentadienyl or indenyl; M is zirconium; **x** is 2; **y** is 2; R is C_1-C_4 alkyl, wherein at least one hydrogen of one R is substituted with $OSiR''_3$ wherein R″ is selected from the group consisting of: Me, Et, and Pr.

31. A process according to claim 27 wherein in formula II, M is zirconium; G_1 and G_2 are cyclopentadienyl or indenyl; R is hydrogen, a C_1-C_4 alkyl wherein at least one hydrogen of one R is substituted with $OSiR''_3$ or a $SiR'_2-OSiR''_3$ group, wherein R″ is selected from the group consisting of: methyl, ethyl, propyl; $[(R)_cQ]_m$ is H_2C-CH_2, $CRH-CH_2$, $RHC-SiR'_2$, $R_2C-SiR'_2$, and $SiRR'$.

32. A process according to claim 10 wherein in formula II, M is titanium; G_2 is an oxygen or a nitrogen atom; G_1 is a cyclopentadienyl, indenyl or fluorenyl ring; $[(R)_cQ]_m$ is H_2C-CH_2, $CRH-CH_2$, $RHC-SiR'_2$, $R_2C-SiR'_2$, or $SiRR'$.

33. A process according to claim 12 wherein the cocatalyst is selected from the group consisting of: an alkylaluminoxane, boron compounds, and mixtures thereof.

34. A process according to claim 10, wherein the support comprises an inorganic solid selected from the group consisting

of: silica, alumina, silica-alumina, aluminum phosphates, and mixtures thereof.

35. A process according to claim 27, wherein the support comprises an inorganic solid selected from the group consisting of: silica, alumina, silica-alumina, aluminum phosphates, and mixtures thereof.

36. A process as claimed in claim 11 wherein in formula I or II R is selected from the group consisting of: hydrogen, SiR'_3, linear C_1-C_{20} alkyl, branched C_1-C_{20} alkyl, linear C_3-C_{20} cycloalkyl, branched C_3-C_{20} cycloalkyl, linear C_6-C_{20} aryl, branched C_6-C_{20} aryl, linear C_7-C_{20} alkenyl, branched C_7-C_{20} alkenyl, linear C_7-C_{20} arylalkyl, branched C_7-C_{20} arylalkyl, linear C_7-C_{20} arylalkenyl, branched C_7-C_{20} arylalkenyl, linear C_7-C_{20} alkylaryl, and branched C_7-C_{20} alkylaryl; and optionally each R group contains a heteroatom selected from the group consisting of: elements of groups 14 through 16 of the periodic table of the elements and boron.

37. A process according to claim 11 wherein in formula I or II M is selected from the group consisting of: Ti, Zr, and Hf.

38. A process according to claim 11 wherein in formula I or II the R group containing the group OSiR″ is selected from the group consisting of: $-CH_2-CH_2-OSiMe_3$, $-CH_2-CH_2-CH_2-OSiMe_3$, $-CH_2-O-CH_2-OSiMe_3$, $-O-CH_2-CH_2-OSiMe_3$, and $-SiMe_2-CH_2-CH_2-OSiMe_3$.

39. A process according to claim 11 wherein in formula I L is cyclopentadienyl or indenyl; M is zirconium; **x** is 2; **y** is 2; R is C_1-C_4 alkyl, wherein at least one hydrogen of one R is substituted with $OSiR''_3$ wherein R″ is selected from the group consisting of: Me, Et, and Pr.

40. A process according to claim 36 wherein in formula II, M is zirconium; G_1 and G_2 are cyclopentadienyl or indenyl; R is hydrogen, a C_1-C_4 alkyl wherein at least one hydrogen of one R is substituted with $OSiR''_3$ or a SiR'_2-$OSiR''_3$ group, wherein R" is selected from the group consisting of: methyl, ethyl, propyl; $[(R)_cQ]_m$ is H_2C-CH_2, CRH-CH_2, RHC-SiR'_2, R_2C-SiR'_2, and SiRR'.

41. A process according to claim 11 wherein in formula II, M is titanium; G_2 is an oxygen or a nitrogen atom; G_1 is a cyclopentadienyl, indenyl or fluorenyl ring; $[(R)_cQ]_m$ is H_2C-CH_2, CRH-CH_2, RHC-SiR'_2, R_2C-SiR'_2, or SiRR'.

42. A process according to claim 19 wherein the cocatalyst is selected from the group consisting of: an alkylaluminoxane, boron compounds, and mixtures thereof.

43. A process according to claim 11, wherein the support comprises an inorganic solid selected from the group consisting of: silica, alumina, silica-alumina, aluminum phosphates, and mixtures thereof.

44. A process according to claim 36, wherein the support comprises a porous inorganic solid, and wherein the porous inorganic solid is an inorganic oxide selected from the group consisting of: silica, alumina, silica-alumina, aluminum phosphates, and mixtures thereof.

45. A process as claimed in claim 11, wherein in step (b) the solvent is eliminated through evaporation.

46. A process for preparing a copolymer, the process comprising contacting the catalyst component claimed in Claim 1 with a

monomer and a copolymer to copolymerize the monomer and the comonomer and to produce the copolymer.

47. A process as claimed in claim 46, wherein the comonomer is an alpha-olefin selected from the group consisting of propylene, butene, hexene, octene, and 4-methyl-1-pentene.

48. A process as claimed in claim 46, wherein the monomer comprises ethylene.

49. A process as claimed in claim 47, wherein the monomer comprises ethylene.

50. A process as claimed in claim 20, wherein the monomer comprises ethylene.

51. A process as claimed in claim 20, wherein the polymerization occurs at a temperature between 30°C and 100°C. or at a temperature between 120°C and 250°C.

52. A process as claimed in claim 20, wherein the polymerization occurs at a pressure in a range from atmospheric pressure to 350 MPa.

53. A process as claimed in claim 20, wherein the polymerization occurs in a solution, in a suspension, in a gas phase, or in a mass.

54. A process as claimed in claim 10, wherein in the metallocene complex the $OSiR"_3$ group is not directly bonded to Q when Q is Si.

55. A process as claimed in claim 11, wherein in the metallocene complex the $OSiR"_3$ group is not directly bonded to Q when Q is Si.

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